[*METHOD OF CORRECTING TRIAXIAL INDUCTION ARRAYS FOR BOREHOLE EFFECT*]

Abstract

A method for modeling borehole effects of a transverse array induction tool includes selecting a formation-borehole model having a set of parameters, wherein the set of parameters comprises a direction of tool eccentering; determining initial values for the set of parameters; computing expected responses for a selected set of arrays from the plurality of arrays of the induction tool, wherein the computing is based on the formation-borehole model; comparing the expected responses with actual responses for the selected set of arrays; adjusting values of the set of parameters, if a difference between the expected responses and the actual responses is no less than a predetermined criterion; repeating the computing, the comparing, and the adjusting, until the difference between the expected responses and the actual responses is less than the predetermined criterion; determining the borehole effects from final values of the set of parameters.